



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,670	10/24/2003	Shoji Inagaki	116994	6338
25944	7590	08/11/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			NGUYEN, CUONG H	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/691,670

Applicant(s)

INAGAKI, SHOJI

Examiner

CUONG H. NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/30/04 & 11/07/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. This Office Action is the answer to the communication received on 9/30/2004 (the 2<sup>nd</sup> IDS).
2. Claims 1-16 are pending in this application.

***Drawings***

3. This application has been filed with 6 sheets of 7 drawings which are acceptable for examining purposes.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 9, 4, 12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A. As per claim 9, lines 17 of page 21, the paragraph: "steering angle deviation amount = time average of difference x (NH/V)" the word "time average of different" used in this paragraph is unclear and confused; further elaboration to define this term is required.

B. As per dependent claims 4, 12: The examiner respectfully submits that it is unclear when claiming "the number of the target vehicle state quantities that are calculated is equal to the number of turns of the reference rotational position of the steering angle sensor by 360° within a rotatable angle range of the steering operator", (e.g., how can "the number of the target vehicle state quantities is equal to the number of turns" ? ).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

**5. Claims 1-3, 5-8, 10-11, and 13 are rejected under 35 U.S.C. § 102(b) as being anticipate by Miki et al. (US Pat. 4,669,745).**

**A. As per claims 1, 5, and 13**

Miki et al. teach a vehicular motion control apparatus, comprising:

- a steering operator that is operated by a driver (see Miki, the abstract, and Fig.4),
- a steering angle sensor that detects a steering angle (steering angles of front wheels and rear wheels, see Miki, the abstract),
- a detector that detects an actual vehicle state quantity (i.e., detecting a yaw rate or yawing moment, see Miki, the abstract); and
- a controller that calculates a plurality of target vehicle state quantities on the basis of a plurality of steering angles estimated from the steering angle detected by the steering angle sensor (see Miki et al., col. 19 lines 1-10, and claim 18), (the examiner respectfully submits that the followings are inherent in Miki et al.'s controller (because claim 1 is directed to an apparatus): “determines a reference rotational position of the steering angle sensor on the basis of a steering angle corresponding to the minimum one of differences between the actual vehicle state quantity and the target vehicle state quantities, and that then calculates a steering angle for controlling motion of a vehicle on the basis of the

steering angle detected by the steering angle sensor and the determined reference rotational position”.

B. As per dependent claims 2-3, and 10-11: Miki et al. teach that a yaw rate (a vehicle state quantity) is estimated from a steering angle (see Miki et al., col. 18 lines 48-50).

C. As per dependent claims 6-8: The examiner respectfully submits that these claims are directed to an apparatus; therefore, they should comprise physical components as required limitations. Miki et al. teach these required limitations: a controller, a steering angle sensor, vehicle state quantities (yaw rates), and reference positions (i.e., a central or a neutral position).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

**6. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miki et al. (US Pat. 4,669,745).**

The examiner respectfully submits that Miki et al. present all structural limitations for a control apparatus.

Miki et al. do not disclose a method or procedure to obtain claimed steering angle.

However, the examiner's position is it would have been obvious to one of ordinary skill in the art at the time of invention to implement Miki et al.'s apparatus to obtain claimed steering angle because these claims merely state a method of use of such control apparatus.

***Conclusion***

7. Claims 1-16 are not patentable.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759. The examiner can normally be reached on 7:30 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the examiner where this application is assigned is 571-273-6759.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
CUONG H. NGUYEN  
Primary Examiner  
Art Unit 3661